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OECD/INES/NETWORK A

REVIEW OF ASSESSMENT ACTIVITIES

Issue 10 *August 1999*

In This Issue

As the summer of 1999 passes quickly by—or as winter does, for our friends in the Southern Hemisphere—we find exciting developments in the field of student assessment. Currently, 32 countries around the world are busy preparing to send data from a field trial of a new international assessment to the international contractor for analysis. This new assessment—OECD's Programme for International Student Assessment (PISA)—differs from previous efforts in that it will measure the performance of 15 year-old students in reading, mathematics, and science from the perspective of *literacy*, as well as the social and educational context in which they live and learn. This edition's feature article provides an overview of PISA, what is being assessed, what outcomes are expected, and where we are now in the process. It is followed by submissions from individual countries telling of their expectations for PISA and their plans for analysis and dissemination.

Also included in this issue is a Country Highlight focusing on the German educational system and recent developments with regard to assessment. Learn about some of the challenges facing Germany as it begins to incorporate formal assessment its education systems, as well as about some of the exciting plans Germany has for PISA, which are among the ambitious of any of the participating countries. Finally, read our regular features for updates on what's happening around the INES project and countries' current assessment activities.

As usual, we offer special thanks to all those who provided information for the newsletter. In particular, we would like to express our gratitude to Andreas Schleicher from the OECD for contributing information on PISA; Jochen Schweitzer from Germany who authored the article on the German educational system; and Allan Nordin and Jaap Scheerens and their staff for updates from Networks B and C. Enjoy the newsletter—our 10th one—and we will see you next time!

PISA – A New, Regular Survey of 15 Year-Olds

This article was provided by Andreas Schleicher of the Organization for Economic Cooperation and Development (OECD), with contributions from Network members added by Maria Stephens.

The International Perspective

How well are young adults prepared to meet the challenges of the future? Are they able to analyze, reason and communicate their ideas effectively? Do they have the capacity to continue learning throughout life? Parents, students, the public and those who run education systems need to know. Many education systems in the OECD monitor student learning to provide some answers to these questions. Comparative international analyses can extend and enrich the national picture by establishing the levels of performance being achieved by students in other countries and by providing a larger context within which to interpret national results.

In response to the increasing demand for solid and internationally comparable evidence of educational outcomes, the governments of the OECD have launched the Programme for International Student Assessment (PISA). PISA is a collaborative process, bringing together scientific expertise from participating countries, steered jointly by their governments, through the OECD, on the basis of shared, policy-driven interests. Countries are working together to produce a method of assessing students that is valid across countries, that is strong at

measuring relevant skills and that is based on authentic life situations. (Exhibit I provides an overview of the information contained in this article and a summary of PISA's key features.)

PISA will produce policy-oriented and internationally comparable indicators of student achievement on a regular and timely basis. These include:

- basic indicators providing a baseline profile of the knowledge and skills of students;
- contextual indicators, showing how such skills relate to important demographic, social, economic and educational variables;
- indicators on trends that will emerge from the on-going, cyclical nature of the data collection and that will show changes in outcome levels, changes in outcome distributions and changes in relationships between student-level and school-level background variables and outcomes over time.

Since the aim of PISA is to assess the cumulative yield of education systems at an age where schooling is still largely universal, testing will focus on 15 year-olds enrolled in both school-based and work-based educational programs. Between 4 500 and 10 000 students will typically be tested in each country, providing a good sampling base from which to break down the results according to a range of student characteristics.

The results of the OECD assessments, to be published every three years along with other indicators of education systems, will allow national policy makers to compare the performance of their education systems with those of other countries. They will also help to focus and motivate educational reform and school improvement, especially where schools or education systems with similar inputs achieve markedly different results. Further, they will provide a basis for better assessment and monitoring of the effectiveness of education systems at the national level.

> *"International evaluations can reveal, more clearly than national ones, the special characteristics of a particular education culture with respect to its context, processes, learning achievements, and developmental challenges. From a close range it is often difficult to see – than from the distance, within a world-wide frame – what the most original features are in one's own educational culture: where the strongest points are, where the best potential is; and on the other hand, what is weak, stagnant, or problematic."*
>
> *–Pirjo Linnakylä,* ***Finland***

Thirty-two countries, including 28 OECD Member countries, plan to take part in the PISA. These are: Australia, Austria, Belgium, Brazil, Canada, China, the Czech Republic, Denmark, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Japan, Korea, Latvia, Luxembourg, Mexico, the Netherlands, New Zealand, Norway, Poland, Portugal, the Russian Federation, Spain, Sweden, Switzerland, the United Kingdom and the United States.

What is being assessed?

PISA aims to assess some of the knowledge and skills that enable students to participate fully in society and the economy and to become lifelong learners. Some elements, such as the mastery of key scientific concepts, are likely to be part of the school curriculum, but the PISA assessments will go beyond mastery of a defined body of knowledge of the type included in many school subjects. They will look at students' ability to reflect actively on their knowledge and experience and to address issues that will be relevant to their own future lives. The first survey cycle covers three "domains": reading literacy, mathematical literacy and scientific literacy.

- ***Reading literacy*** requires students to perform a range of tasks with different kinds of text. The tasks range from retrieving specific information to demonstrating a broad understanding and interpreting text and reflecting on its content and features. The texts that are used will include not just standard prose passages but also various types of documents such as lists, forms, graphs, and diagrams.
- ***Mathematical literacy*** entails the use of mathematical competencies at several levels, ranging from performance of standard mathematical operations to mathematical thinking and insight. It also requires the knowledge and application of a range of mathematical content that is drawn from areas such as chance, change and growth, space and shape, quantitative reasoning, uncertainty and dependency relationships. This includes specific areas of the mathematics curriculum, such as algebra, numbers and geometry.
- ***Scientific literacy*** involves the use of key scientific concepts in order to understand and help make decisions about the natural world. It also involves being able to recognize scientific questions, use evidence, draw scientific conclusions and communicate these conclusions. Scientific concepts relevant to the students' world both now and in the near future will be used. These include concepts to do with science in life and health, earth and the environment, and technology.

The term "literacy" is chosen to reflect the breadth of the knowledge, skills and competencies being assessed. The assessment domains are defined in terms of: the content or structure of knowledge that students need to acquire in each domain; the processes that need to be performed; and the contexts in which knowledge and skills are applied. For each domain there will be a continuous scale on which the performance levels of individuals and the distributions of performances of populations can be represented by scores.

Competencies that cross curriculum boundaries will have a growing importance in PISA as it develops over time. PISA 2000 will analyze *student motivation* and other aspects of *student attitudes*, under the heading "self-concept." In 2003, PISA will also specifically assess students' ability to solve problems.

To gather contextual information, students and the principals of their schools will also be asked to respond to background questionnaires that will take 20 to 30 minutes to complete. These questionnaires are central tools to allow the analysis of results in terms of a range of student and school characteristics. They will seek information about: the students and their family backgrounds, including the economic, social and cultural capital of students and their families; aspects of students' lives such as their attitudes to learning, their habits and life inside school and their family environment; aspects of schools such as the quality of the school's human and material resources, public and private control and funding, decision-making processes and staffing practices; and the context of instruction including institutional structures and types, class size and the level of parental involvement.

What will come out of PISA?

At first international report will present the overall results, while national governments will develop their own reporting methods, putting results in the context of their own education systems and context. The OECD will also publish a series of analytical reports examining the implication of PISA results for policy.

Exhibit I: Key Features of PISA

Basics

- An internationally standardized assessment, jointly developed by participating countries and administered to 15 year-olds in groups in their schools.
- Administered in 32 countries, of which 28 are members of the OECD.
- Between 4 500 and 10 000 students will typically be tested in each country.

Content

- PISA covers three domains: reading literacy, mathematical literacy and scientific literacy.
- PISA aims to define each domain not merely in terms of mastery of the school curriculum, but in terms of important knowledge and skills needed in adult life. The assessment of cross-curriculum competencies is an integral part of PISA.
- Emphasis is placed on the mastery of processes, the understanding of concepts and the ability to function in various situations within each domain.

Methods

- Pencil and paper tests are used, with assessments lasting a total of 2 hours for each student.
- Test items are a mixture of multiple-choice test items and questions requiring the student to construct their own responses. The items are organized in groups based on a passage setting out a real-life situation.
- A total of about 7 hours of test items is included, with different students taking different combinations of the test items.
- Students answer a background questionnaire that takes 20-30 minutes to complete, providing information about themselves. School principals are given a 30-minute questionnaire asking about their schools.

Assessment cycle

- The first assessment will take place in 2000, with first results published in 2001, and will continue thereafter in three-year cycles.

Finally, a rich array of data from the survey will be made available to others who wish to conduct their own analyses. Results will be summarized on the PISA website (http://www.pisa.oecd.org/).

In each domain, students' achievement levels will be reported on a continuum describing their capacity to perform specific tasks. Breakdowns will also be possible for sub-groups defined by student characteristics - such as achievement by gender or by socio-economic group.

PISA will provide an extensive basis for policy-oriented analysis of the assessment results. By comparing the direction and pace of change in different countries, policy makers will be able to put local developments in the context of global change to meet the challenges of the new century. For example, PISA will allow policy makers to:

- relate student performance to the context of instruction;
- analyze the relationships between student performance and school factors such as the quality of the school's human and material resources or public and private control, funding and decision-making mechanisms;
- analyze differences in achievement patterns within countries, including information on the proportion of variation in student performance between, rather than within, schools as well as the extent to which schools influence the relationship between students' performance and the economic, social and cultural capital of their families; and
- compare aspects of students' lives such as their attitudes to learning and their life in school and in their family environment.

Progress to date

During 1998, OECD Members built consensus at both policy and technical levels on assessment frameworks that identify the PISA tasks characteristics and indicate how these characteristics will be used in constructing the assessments. To support this process, experts groups were established that were charged with linking the PISA policy objectives with the best internationally available technical expertise in the different assessment domains. The aim of these expert groups was to ensure that the PISA assessment instruments are internationally valid and take into account the cultural and educational contexts in OECD Member countries; that the assessment materials have strong measurement properties; and that the instruments place an emphasis on authenticity and educational validity.

These assessment frameworks were then translated into assessment tasks and items. Again, there was wide international collaboration in this process. Various opportunities were provided for country feedback on the stimuli and items and virtually all countries participating in PISA actively seized these opportunities. Most countries submitted candidate assessment materials in order to inform and to provide input to the process of instrument development. In addition to assuring linguistic and cultural breadth in the origin of the assessment materials, PISA went through an extensive review of the cultural and linguistic appropriateness of the test items in all participating countries. Each test item was reviewed with regard to exposure of students to the content in a school and non-school context, any anticipated cultural bias and overall suitability for use in participating countries.

During the months March - May 1999, a PISA field trial was conducted in all participating countries through which the assessment items were tried out. The results from this field trial are currently being analyzed and the results will be used to select items that contribute to indicators of useful skills and knowledge and that are valid for making comparisons of students in different countries.

Towards the end of this year the main study instruments will be developed. Although the assessment of individual students will last two hours the items included will, because different students will be assessed with different combinations of material, add up to nearly seven hours of assessment material. This will ensure a wide coverage of the domains. Some questions will be multiple-choice while others will require students to construct their own responses. The objective of much of the assessment material will be to determine whether students can reflect and think actively about the domain, rather than simply repeat knowledge that they have learned.

The National Perspectives

While the preceding section provided information about PISA at the international level, this section will examine PISA from individual national perspectives, describing countries' own reports of why they chose to participate in PISA, what optional components are planned, and how they plan to use the information gained.

Rationale for Participating in PISA

There are a variety of reasons that countries cite when explaining why they have chosen to participate in PISA, a project in which participation has exceeded even the most optimistic expectations formed at its outset. Of the countries that responded to our request for information, nearly all (**Czech Republic**, **Finland**, **Mexico**, **New Zealand**, and **Spain**) mentioned the importance of collecting data that allows countries to look at their system-wide performance in comparison to their counterparts around the world. This was important for countries not simply for the knowledge of one's own current potential for global competitiveness, but for examining education systems and finding ways to improve teaching and learning.

Also, interestingly, **Mexico** stated that beyond the usefulness of gaining comparative information for policy analysis, PISA will be of value for the experience that policy makers and researchers in Mexico will gain by working on a collaborative, technical effort of this magnitude.

Another benefit that countries frequently cited relates to the *type* of information PISA will collect. For instance:

- **Austria** described the information PISA will provide about students' knowledge, skills, and backgrounds as essential for determining the effectiveness of the education system in Austria.
- For the **Czech Republic**, PISA's focus on literacy is very important, as a new conceptual foundation for the education system is being developed which stresses the development of "life skills and competencies" in basic and secondary education.
- **Finland**, too, notes that the future orientation – rather than a curricular one – is a particularly appealing feature of PISA.
- **Norway**, like the Czech Republic and Finland, also appreciates the broad conception of what skills, attitudes, and abilities are important to measure.

Several countries also noted that PISA fit directly with a national policy or national curriculum:

- For **New Zealand**, PISA provides an opportunity to systematically study student outcomes for those students who are nearing the end of compulsory school in three important learning areas in the New Zealand curriculum, and it fulfills the desired international component of their national assessment policy framework.
- Among other reasons, **Norway** finds PISA to be of great interest, as it has features that match well with their curricular guidelines that were recently developed during the reforms of 1997.

Another feature of PISA that promoted some countries' participation was its promise of trend data in the areas of reading, mathematics, and science literacy over the next decade. One of the most interesting examples was provided by the **Czech Republic**. There, policy makers are interested to find out whether the "insufficiency" of Czech students as analyzed in the IEA Reading Literacy Study will be confirmed in the first cycle of PISA and how it may change over time.

National Participation in the Optional Components of PISA

As mentioned earlier in this article, PISA consists of two international options—both self-report questionnaires—in addition to the main assessments and context questionnaires. The first is the CCC/self-concept option and the second is the information technology (IT) option. Twenty of the 32 countries participating in PISA have elected to administer the self-concept instrument, and nearly all will participate in the IT option.

Those not participating in the CCC option cite the experimental nature of the instrument, the lack of relevance in the national context, or a desire not to overburden students as reasons for non-participation. Some countries that have chosen to participate in the IT option did note, however, that in the future they would like to see the survey go deeper into issues such as use and impact of technology. Most countries acknowledge that there is still development work to be done and questions to be answered with regard to what it is we want to know related to IT.

In PISA, countries also have the opportunity to develop national options or additions, with the approval and advice of the international contractor. The options that some countries have chosen to include range from, at the most simple, the addition of items to existing surveys or oversampling for more analytic possibilities to, at the more complex, the addition of entire surveys or assessments. Exhibit II describes the national options being undertaken in responding countries.

Uses of PISA Results

The obvious and main use that most responding countries name for the PISA results was to inform policy decisions related to education. More specifically:

- **Austria** described how the results from PISA would be used to provide guidance for curricular innovation, as well as to improve pedagogy and the didactics of domains.
- The **Czech Republic** stated a wish that a number of PISA items would be released following the test, in hopes that they could serve as an interesting source of new ideas to current and future Czech teachers.

Exhibit II: National Options in PISA

Country	Options Planned
Austria	Five options are planned: • Reading Speed Test (to provide additional information about decoding skills) • Survey questions on students' behavior in reading • Survey questions on information technology use in school and for reading • Survey questions on school quality and reading • Survey questions on the pscyhological state of students with regard to school
Czech Republic	Two options are being considered: • Teacher survey (on methods, attitudes) • Follow-up study to validate students' responses to background questionnaire
Finland	No national options are planned.
Germany	Several options are planned: • Parent questionnaire • Oversampling to allow breakdown by *Laender* (states) • Additional grade-based sample (9th grade) • Assessment of English and German competencies • Assessment of problem solving skills • Survey questions on curriculum
Ireland	One option is planned: • Reading Speed Test (to determine effects of speed on performance in this assessment, where reading load is heavy)
Mexico	One option is being considered: • Teacher survey (on their preparation, second jobs, salary)
Norway	Two options are planned: • Oversampling of language minorities for expanded analysis possibilities • Inclusion of more detailed diagnostic codes for deeper national analysis
Spain	One option is planned: • Oversampling in Autonomous Communities to allow their comparison to national and international means

- **Finland** noted that, among other things, they would use PISA to inform questions of particular national interest. For instance, officials there are particularly interested in questions related to changes in the education system and learning environments, such as the effects of decentralization for educational equity, efficiency, excellence, emancipation, and empowerment among regions, municipalities, schools, and students.

With regard to plans for dissemination, most responding countries are in the initial stages of planning and do not yet have explicit plans. **Finland** seems to have a head start, however. Officials have held press conferences, placed articles in national newspapers, and recently made presentations at teachers' assemblies. Further, they have plans to publish, by Autumn 1999, the assessment frameworks in Finnish—which some educators jokingly refer to as the secret "X-Files"—and provide a free copy to all schools participating in the field trial and make the remaining copies available for regular sale. Dissemination efforts are already underway in **Germany**, as well, and numerous articles about PISA have been placed in the popular press.

In the **Czech Republic**, a dissemination similar to that used for TIMSS is planned—with brochures, reports, newspaper articles, and lectures aimed at a wide range of audiences. **New Zealand** also noted the importance of targeting all possible interested audiences with materials designed particularly for them. In that country, various documents, fliers, and reports will be prepared for: parents and the broader public; those who govern schools (boards of trustees); those who manage schools (principals and administrators); teachers engaged in classroom practice; and the students themselves.

Network Updates

Network A

Network A last met in Paris, from March 22-24, where the group discussed their plans for indicators for *Education at a Glance* in 2000 (EAG 2000), for a publication on the future of the field of student assessment (the so-called Network A 2000 publication), and for an evaluation of PISA. The group also provided guidance regarding the further development of PISA's context questionnaires, next steps for the CCC/self-regulated learning option in PISA, and the draft map of the problem solving domain.

In May, a small working group met in Washington, D.C. The purpose of this meeting was for Network members to provide guidance to the Secretariat in drafting preliminary terms of reference for the second cycle of PISA. The terms of reference are being reviewed by Network A members and members of PISA's Board of Participating Countries this summer and will be finalized over the coming months.

Network A will meet again in Luxembourg, from October 27-29. At this time, Network members will review indicators for EAG 2000, chapters for Network A 2000, and the proposed final instruments for CCC/self-regulated learning and information technology. Additionally, members will review the final draft map of problem solving and the accompanying annotated bibliography. Network A members also will be updated on the PISA field trial results and on the progression of the evaluation of the implementation of PISA. Finally, during the meeting in Luxembourg, the group will discuss plans for the next phase of problem solving development work and other possible

developmental activities (e.g. assessments of information technology literacy, reading in a second language and integrated communication).

Network B

During the spring of 1999, Network B prepared a Strategy Paper to organize projects through the end of 2000. As the paper cites, the two main objectives of the Network are to develop and improve indicators of Continuing Education and Training (CET) and on the transition from school to work.

To carry out the work under the two primary objectives, two sub-committees have been established. Eight countries have confirmed their interest in joining the sub-committee on Transition, which will be coordinated by Patricia de Brouker. Meanwhile, eleven countries have agreed to participate in the development of indicators of Continuing Education and Training (CET), which will be led by Anna Borkowsky. Interestingly, the CET group gathered in Neuchatel, Switzerland on July 7-8, to meet with a sub-group of the International Life Skills Survey (ILSS). Among the topics of discussion was the development of a questionnaire model on CET to be attached to the countries' Labor Force Surveys.

The next Network B plenary meeting will take place on September 27-29 in Athens, Greece. The agenda will include a review of data for the next EAG and an assessment of the data collection for the new transition indicators. Also, members will review the implementation of ISCED 97 and will discuss further work on indicators of Human Capital Investment and Social Equity. Finally, sub-committee sessions on CET and Transition will take place during the same weekend.

Network C

In the first six months of 1999, Network C met on two occasions—the first in Paris on March 1-2 and the second in Noordwijk, Netherlands on May 10-12. At both assemblies, the Survey of Schools at the Upper Secondary level was a main topic for discussion.

In January of 1999, the INES Steering Committee agreed to support the Survey of Schools at the Upper Secondary Level. This survey will yield indicators on the structure and number of units (schools, programs, students) at the upper secondary level, both regarding tracks for general education and tracks for vocational education. In order to be able to construct internationally comparable indicators, thus making the survey viable, the classification of programs needs to be refined and expanded. Thus, an ambitious study of program classifications is planned to take place before the survey begins.

The Survey of Schools at the Upper Secondary Level is focused on the development of process indicators in four areas:

- school characteristics aimed at facilitating the transition to the labor market and/or further education,
- conditions of schooling which are instrumental to enhancing educational quality,
- human resources, and
- availability and use of information and communication technology.

The Upper Secondary School Survey will be undertaken in two phases. The first phase will focus on design and planning, involving all the particulars instrument development and related pre-tests. The second phase will be the implementation of the survey. This stage will

consist primarily of the field test, the main study, and related activities of data organization and analysis.

The preliminary activities, phase one, will take place in 1999. The main study and the development of indicators will take place in 2000 and 2001. Approximately 20 countries participating in Network C, both European and non-European, have expressed their interest in participating in the survey.

Also prominent in the discussion of the two meetings in 1999 was the coming edition of EAG. For the 2000 edition, Network C will prepare indicators on staffing, curriculum, and locus of decision making of educational systems. Staffing will be examined in terms of the statutory salaries of teachers in public and private schools, teaching and working time, pre-service training of teachers, and the age and gender distribution of teachers. The curriculum indicators will provide information about the total intended instruction time for pupils in lower secondary education. Finally, the indicators dealing with the locus of decision making will provide information on decision making in lower education on issues of education finance, issues involving teachers and other staff, and issues of curriculum in lower secondary schools.

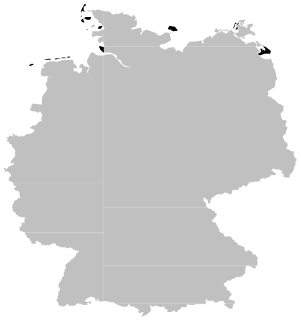
The BPC

The BPC last met in Tokyo in early March 1999. At this time, many members were engaged in the field trial, which was a major topic of discussion. They also discussed proposals for a dissemination plan and evaluation of PISA. The BPC's next meeting will be in Paris in October 1999. Members will review the budget, review the results of the field trial and discuss final instruments, and receive updates on the evaluation of PISA. The group also will discuss the thematic reports planned for dissemination in 2001 and 2002 and developments with the context questionnaires. A major topic also will be a review of the draft terms of reference for the second cycle of PISA and more generally, the scope of PISA in the future.

Country Highlight: Germany

This article was prepared by Jochen Schweitzer, Member of INES Network A, BPC, and German National Committees for PISA.

This article describes the practice of educational assessment in Germany, in the context of a Federal system of government in which responsibility for education is devolved entirely to the states, or "Laender." Each of the 16 *Laender* has its own educational laws, special regulations, and structures for its school system. Consequently, the practice of assessment on a wide-scale is a recent development, but one that is growing and gaining attention in Germany.



Overview of the Education System

Educational legislation and administration of the educational system are primarily the responsibility of the Ministries of Education or Cultural Affairs in the *Laender*. The ministries are responsible in particular for determining the structure of the school system, hiring the teaching staff, and making all decisions regarding school matters. The communes (local authorities) set school

budgets and maintain the school building and its equipment. The degree of individual schools' freedom and autonomy with regard to the governance of school matters varies across the *Laender*. In Germany, about 94 percent of students attend public schools, while about 6 percent attend private schools.

Compulsory education in Germany begins at age six. At this time, students begin four years of compulsory primary school. When primary school is complete—when children are ten years old—the German school system is divided into three different types of schools: the *Hauptschule* (lower standard), the *Realschule* (middle standard) and the *Gymnasium* (grammar school, upper standard), and students are placed in these schools according to academic ability. In addition to these three types of schools, there is the comprehensive school (*Gesamtschule*) which is common in *Laendern* with social democratic governments. In comprehensive schools, students stay together from the 5th to the 10th grade and are divided into different levels (or "tracked") only in specific subjects. The question of separation (such as into *Hauptschule*, *Realschule*, or *Gymnasium*) or integration (such as with comprehensive schools) of schools in lower secondary education is one the most controversial issues between the two main parties, the social democrats and the Christian democrats who lead the different *Laender*-governments. Thus, this is one of the ways in which education systems vary across *Laender*.

In Germany there are no entrance examinations to schools or universities. The testimonials and school-leaving qualifications of a school entitles a student (depending on his or her academic success) to go either to the next level of schooling or to vocational training, after graduating from secondary school. There are generally agreed-upon standards regarding the content of special subjects (German, mathematics, foreign languages) which must be maintained for the degree at the end of lower secondary level in all *Laender*. The "Abitur" (final grammar school certificate) is the highest secondary school degree possible. It entitles students who hold the *Abitur* to go to any German university and begin an academic career. Detailed regulations and examination rules exist for all upper grade grammar schools in order to ensure the equivalence of the *Abitur* certificate in every *Laender*.

Besides the grammar school certificate, there are alternative ways to reach higher education and an academic career. For instance, students who have pursued vocational training may be entitled to continue on to higher education. Vocational training in upper secondary education is highly differentiated. There is a large range of courses that offer full-time vocational training within schools or vocational training within the dual system (a cooperative combination of academic instruction and experience in the workplace). Two-thirds of young people in Germany undergo vocational training in the dual system, usually for a period of three years. The dual system is regulated by federal law, and, as a result, is highly standardized. Those who complete the training successfully are entitled to do skilled work in one of about 370 recognized jobs. Some of these vocational training courses lead to the highest school degrees, which thus entitle students to academic careers. There also are special vocational education schools for students with learning disabilities in order to integrate them into the labor market.

The 16 *Laender* and their Ministers of Education and Cultural Affairs cooperate on a standing conference and a permanent secretariat office. So, despite the independence of the 16 *Laender*, there are many similarities. Although each *Land* regulates the school-leaving qualifications and assessments independently, all school-leaving

qualifications and university examinations are acknowledged by the various educational systems. Thus, there are no consequences if a student moves from one *Land* to another. Furthermore, in order to exchange information on the latest educational developments and update the common education standards, the ministers and their officials meet regularly.

Educational Assessment in Germany

In Germany, the responsibility for the assessment of the students' performances lies exclusively with schools and their teachers. Furthermore, there is no overall system or framework for academic standards, even in the *Laender* with partly centralized examination systems. The variation between schools in the German *Laender* was highlighted by two studies: a *landes*-wide assessment of the standard of performance of 5th graders in the *Land* Hamburg and the Third International Mathematics and Science Study (TIMSS), in which Germany participated.

The Conference of the Education Ministers thus has decided that all 16 *Laender* will participate in the OECD's Programme for International Student Assessment (PISA). The PISA project was deemed so ambitious that the Conference decided to extend the test population considerably ("oversample") in order to enable comparison between the 16 *Laender* and between the different school types within the *Laender*. A sample of ninth-graders (in addition to the expanded age-based sample of 15 year-old students) also will participate in PISA in Germany.

In addition, the school survey was expanded to gather information regarding the curricula of the *Laender* and specific national conditions of the schools in Germany. Therefore, a second test day is needed to administer the test and questionnaires. A parental questionnaire will also be distributed. The additional questionnaires are designed to examine personal, social, and family features. They enable a more thorough investigation of the correlation between students' test performance and school, family, and social conditions. Two final expansions include an assessment of the sample's communication competencies in German and English, and an assessment of a separate sample's problem-solving abilities, via a computerized test. In addition to these alterations, a report on the current research on assessments and data analysis of student performances has been requested by Professor Dr. Franz E. Weinert from the Max-Planck-Institute of Psychological Research in Munich.

The overall aim of Germany's participation in PISA is not a simple ranking of schools but a fair comparison between student performance within schools and among the *Laender*.

The popularity of studies like PISA is spreading in Germany. Several *Laender* are now planning or even performing their own *landes*-wide assessments in certain grades and in certain subjects. Other strategies for student assessment and, more generally, evaluation of the education system are also spreading. First, teachers are being encouraged to discuss student achievements, standards, requirements and possibilities with colleagues in their own schools and in other schools to improve teaching. These discussions are often based on comparable papers/tests among parallel classes. Second, schools are encouraged to set up school development plans, which comprehensively describe their educational and instructional efforts, against which they can evaluate whether goals have been reached. Usually, parents are involved in the establishment of a school's development plan. Also, local employers and associations frequently support the regional schools, and

school inspectorates provide advice and/or approval for the plans.

This incredible activity in the area of assessment and evaluation is rather new for Germany and would have been inconceivable to such an extent ten years ago. This important change in German educational policy and administration signifies a desire to improve schooling, teaching and learning. Now, Germany is starting to adapt traditional forms of steering and controlling schools, which are already well known and used in other countries, for their own use. At the same time, ministers and officials, as well as the schools themselves, want to improve and increase the instruments available for assessment in additional areas, such as social learning, key-qualifications, and school life.

Significantly, these goals are shared by and reflected in the research programs of the Max-Planck-Institute for Human Development in Berlin, as well as other university institutes and educational scientists in Germany. "Two scientific conferences for researchers, policy makers, and the teachers' unions are planned for September and December 1999.

In response to this rapid development in the area of assessment and evaluation, non-empirical educationalists and a substantial number of teachers have strong reservations and fears, which are expected to be voiced as part of an avalanche of concerns. Their main concern is that the traditional German educational definition and concept that was founded and influenced by the new-humanism of Kant, Goethe and Humboldt 200 years ago will be in danger if only measurable achievements are evaluated, such as they perceive formal assessments to do.

The acceptance of assessment programs in Germany will depend on the analysis of the results and preparation of useful indicators. These results could provide interesting and helpful information that would support schools and teachers in their work. If only rankings are published, and public interest focuses solely on numerical data, the opposition to these assessments will gain momentum. Budget reductions in education and the reduction of technical assistance for such studies pose a threat to continued support for assessment and breed an unstable balance in the education community between hope and skepticism. A campaign to inform and persuade the population will be necessary in the coming months and years if wide-scale assessment is to take hold in Germany.

Current Assessment Activitites

There has been a great deal of activity in the area of student assessment since the last newsletter, thanks largely to PISA. All responding countries noted that they spent the past six months engaged in activities related to the field test, such as: translating the instruments, training personnel, liaising with schools participating in the field test, administering the field test, scoring and coding the tests, and cleaning data files. Ireland and New Zealand also noted that officials in their countries also met with the national review or advisory boards during this period on issues related to the field test.

Several countries noted other assessment activities, as well. In the past six months, **Finland** has been engaged in the main data collection and related tasks for TIMSS-R, SIALS, IEA Civic Education Project, and their own National Assessment in Language Arts. Further, they are participating in data collection for the first module of the SITES project and an EU project on international indicators of Learning to Learn. In **New Zealand**, work continued on the Assessment

Resource Banks and additional tasks were prepared for mathematics, science and English. Also, officials prepared for data collection for the second four-year cycle of the National Monitoring Project, which will collect data in September/October on student achievement in science, information skills, and art. Reports also were recently released (or are soon-to-be) on the results of the last year of the first cycle of the National Monitoring Project, on students' speaking and listening skills, writing skills, health and physical well-being, as well as on the results in three assessment tasks in the School Entry Assessment.

This newsletter is published under the auspices of Network A. Network A, which is primarily concerned with indicators of student achievement, is one of four working groups that are part of OECD's international Indicators of Education Systems (INES) Project. The newsletter is prepared by Eugene Owen (Network A Chair) and Jay Moskowitz, Maria Stephens, Philip Strunk, and Yasmin Shaffi of the American Institutes for Research, with contributions from Network A members.

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